

STATE OF MINNESOTA
OFFICE OF ADMINISTRATIVE HEARINGS
FOR THE POLLUTION CONTROL AGENCY

In the Matter of Reichmann Land and
Cattle, LLP

**FINDINGS OF FACT,
CONCLUSIONS AND
RECOMMENDATION**

This matter was heard by Administrative Law Judge (ALJ) Richard C. Luis at the OAH in St. Paul, Minnesota, on October 1-4, and October 15, 2012. The record closed after the filing of Simultaneous Briefs on November 19, 2012. Ann E. Cohen, Assistant Attorney General, appeared on behalf of the staff of the Department of Natural Resources (Department, DNR). Gary W. Koch and Matthew C. Berger, Gislason & Hunter, LLP, appeared for Respondent Reichmann Land and Cattle, LLP (Reichmann).

STATEMENT OF ISSUE

Whether Reichmann is required to obtain a National Pollution Discharge Elimination System/State Disposal System (NPDES/SDS) permit to operate its winter cattle feeding sites, or to reduce cattle numbers to a level consistent with a pasture operation?

Based on the proceedings herein, the ALJ makes the following:

FINDINGS OF FACT

PROCEDURAL HISTORY

1. Reichmann Land and Cattle, LLP (“Reichmann”), is organized as a limited liability partnership and is a family farm partnership. Reichmann is owned and operated by Theodore (“Ted”) Reichmann, Jon Reichmann (Ted’s brother), and Ronald Reichmann (Ted and Jon’s father). Ted and Jon Reichmann are fifth-generation farmers, and the Reichmann family has been farming near the City of Villard in Pope County, Minnesota, for approximately 100 years.¹

2. Reichmann operates a diverse agricultural business that includes both crop and livestock and crop operations. With respect to its crop operation, Reichmann grows various crops—including corn, soybeans, and kidney beans, on approximately 4,000 acres of land. Reichmann’s livestock operation includes two registered feedlots located east of Villard in Pope County, Minnesota (the “Registered Feedlots”). The

¹ Reichmann Pre-Filed Test., at 1; Tr., at 804:13-805:4 (Reichmann Test.).

Reichmann family also operates a trucking business that transports agricultural products, such as feed and fertilizer, and a business that grinds livestock feed for other agricultural producers.²

3. This contested case arises out of a proposed administrative order issued by the Minnesota Pollution Control Agency (“MPCA”) to Reichmann on March 22, 2011.

4. Reichmann requested a contested case hearing on March 31, 2011.

5. On June 27, 2011, the MPCA issued a Notice and Order for Pre-Hearing Conference in which the issue for hearing was identified as “[w]hether Respondent’s “winter feeding” sites are properly classified as “pastures” such as to be exempt from the requirement to obtain an NPDES/SDS permit.”

6. Beginning during the 1990s, Reichmann has used some of its crop land for “winter-time feeding” of livestock. In approximately March or April, around the time of the spring thaw, the cattle are removed from the winter-time feeding sites, and new crops are planted on the fields and grown during the summer until they are ready to harvest.³

7. Reichmann places beef cattle on designated portions of its crop land in approximately November or December, after the crops have been harvested. Reichmann contends that the cattle are allowed to forage and graze throughout the winter on crop residues and vegetation that remain on the fields after harvest and are also provided with supplemental feed. Each winter-time feeding site includes a watering station for the cattle and stacked bales of hay or straw to provide the cattle with a sheltered area from the winter elements.

8. During the winter feeding season, each winter-time feeding site includes an area where tractor tires are placed to serve as what Reichmann contends are “supplemental feeders.” Each morning, Reichmann provides feed, which includes sweet corn silage, beet pulp, dried distillers grains, straw, corn, and minerals, in the tractor tires. Reichmann contends it typically provides enough feed to provide approximately 90 percent of the nutritional needs of the cattle, with the remaining nutrition provided by the crop residues that the cattle forage.⁴

9. Cattle tend to congregate in the feeding area each morning when the feed is provided. A few hours later, after the feed has been consumed, the cattle will typically spread out across the remainder of the winter-time feeding site and will rest.⁵

² Reichmann Pre-Filed Test., at 2; Tr., at 805:5-805:14 (Reichmann Test.).

³ Reichmann Pre-Filed Test., at 2.

⁴ Reichmann Pre-Filed Test., at 2-3; Wright Pre-Filed Test., at 2-3; see Tr., at 36:2-37:19 (Scheirer Test.); Tr., at 922:16-924:4 (Reichmann Test.); MPCA Ex. 1, at ex. 2.

⁵ Reichmann Pre-Filed Test., at 3; Tr., at 572:3-575:5 (Wright Test.); see generally MPCA Exs. 2-3.

10. On October 13, 2011, Reichmann brought a summary judgment motion, based largely on a statutory change adding a new definition of pasture in Minn. Stat. § 116.07, subd. 7d, that had occurred after the administrative order was proposed.

11. On December 6, 2011, the Administrative Law Judge (“ALJ”) denied summary judgment in part, but ruled that a federal NPDES permit is not required because Reichmann is not an “Animal Feeding Operation” or “AFO” as defined by 40 C.F.R. § 122.23(b)(1) under the ALJ’s interpretation of that regulation.

12. On January 20, 2012, the MPCA staff sought certification of this ruling to the MPCA pursuant to Minn. R. 1400.7600 because it conflicted with the MPCA’s argument which incorporated U.S. EPA interpretations of 40 CFR § 122.23(b)(1) found in a contemporaneously-adopted preamble to the rule. Based on the preamble, the EPA indicated that the use of a winter feedlot to grow crops during a period when animals are not confined would not exclude the feedlot from meeting the definition of an AFO. See 68 Fed. Reg. 7189 (Feb. 12, 2003).

13. On April 13, 2012, the ALJ denied the motion to certify but affirmed that the evidence at the hearing could address the question of whether “crops, vegetation, forage growth, or post-harvest residues” are present when the cattle are confined.

REICHMANN LAND AND CATTLE, L.L.P.

14. At this time, Reichmann operates two registered feedlots known as the “West Site” and “East Site.” The cattle on these sites are dairy cattle.⁶ In addition to the feedlots, Reichmann farms 4,000 acres of land.⁷

15. In addition to the registered feedlots, Reichmann also maintains beef cattle during the winter season (November through April) in fenced areas (“Tracts”) on land that is typically cropped during the summer season. Reichmann refers to this practice as “winter feeding.”⁸

16. The land used for “winter feeding” is adjacent to the registered feedlot sites and is also under the ownership and control of Reichmann.⁹

17. Reichmann’s winter feeding operation is the only operation of its type in Pope County.¹⁰ The more common winter practice in Pope County involves grazing — not feeding — cattle on harvested corn fields.¹¹

18. Reichmann currently uses four sites that total approximately 416 acres for its winter-time feeding practices: Tract 1 includes approximately 215 acres of crop land; Tract 2 includes approximately 29 acres of crop land; Tract 3 includes approximately 78

⁶ Tr. 400; Theodore Reichmann Prefiled Test., at 2.

⁷ *Id.*

⁸ Tr. 807-11.

⁹ Theodore Reichmann Prefiled Test., at 2; MPCA Ex. 27.

¹⁰ Tr. 405, 444.

¹¹ Tr. 405.

acres of crop land; and Tract 4 includes approximately 94 acres of crop land. Tract 1 is sometimes divided into two sections: an East section, which is sometimes called the Peterson site, includes approximately 88 acres; and a West section, which is sometimes called the Culbertson site, includes approximately 127 acres.¹²

19. An intermittent stream runs from West to East amidst the various winter-time feeding sites. Tract 2 is located to the North of the East/West intermittent stream and to the South of 127th Street. Tract 3 and Tract 4 are also located to the North of the East/West intermittent stream, with Tract 3 located directly West of Tract 2 and Tract 4 located directly to the East of Tract 2. Tract 1 is located to the South of the East/West intermittent stream and is located directly South of Tract 4.¹³

20. One of the Registered Feedlots is located directly across (to the North) of 127th Street from Tract 2. A second intermittent stream begins approximately one-quarter mile to the North of the Registered Feedlot and runs south through the Registered Feedlot and Tract 2 before joining the East/West intermittent stream.¹⁴

21. In and around Pope County, crop fields are generally tilled and crops are generally planted between late-April and early-June, depending on weather conditions and the specific crop.¹⁵

22. The “normal growing season” for crops in and around Pope County generally begins in or around May, when crop fields are tilled and crops are planted, until the time of the first frost in the following Fall.¹⁶

23. Each spring, Reichmann removes all of the cattle from the winter-time feeding sites prior to the normal planting season and tills the soil and plants crops on the winter-time feeding sites at the same time as other crop fields in the area. The crops that are planted on the winter-time feeding sites are sustained throughout the summer growing season and are harvested at the same time as other similar crops in the area. Jerry Holien, the Feedlot Specialist for the Minnesota Pollution Control Agency (“MPCA”) who has been primarily responsible for monitoring Reichmann’s operation, acknowledged in his testimony that there is no evidence that Reichmann has not followed the normal growing season with respect to tillage, planting crops, or harvesting crops on the winter-time feeding sites.¹⁷

24. Reichmann generally plants corn, soybeans, or kidney beans on the winter-time feeding sites. During the 2012 growing season, Reichmann planted and

¹² Reichmann Pre-Filed Test., at 2.

¹³ Reichmann Ex. 1.

¹⁴ Blaha Pre-Filed Test., at 4; MPCA Ex. 1, at ex. 6, attach. A; MPCA Exs. 27, 33; Reichmann. Ex. 10; Bouwman Aff., at Ex. 1.

¹⁵ Tr., at 189:22-190:25 (Holien Test.); Tr., at 766:4-766:12 (Rehm Test.); Tr., at 823:23-825:2 (Reichmann Test.).

¹⁶ *Id.*

¹⁷ Reichmann Pre-Filed Test., at 2; Tr., at 191:6-191:25, 223:16-223:19 (Holien Test.); Tr., at 443:9-444:4 (Bouwman Test.); Tr., at 670:25-671:6 (Thaden Test.); Tr., at 734:19-735:12 (Werven Test.); Tr., at 809:25-812:8 (Reichmann Test.); *see generally* MPCA Exs. 4-5.

grew corn on all of Tract 1 and Tract 3. Reichmann planted and grew corn on most of Tract 2 during the 2012 growing season and planted soybeans on one portion of Tract 2. After the co-op mistakenly sprayed and killed the soybeans, however, Reichmann grew sorghum and sudan grass on the portion of Tract 2 that was originally planted with soybeans. On Tract 4, Ted Reichmann's uncle, who farms the land in the summer, planted and grew soybeans and oats on various portions of the field.¹⁸

25. Tract 2 is 29.3 acres and consists of several parcels or pens and is referred to as the "acclimation" site or the "R 8" pens.¹⁹ It is relatively steeply sloped towards the stream system that runs through the Reichmann land. MPCA Ex. 33. Recently, the site has been used only to process the cattle on and off the other sites at the beginning and end of the winter feeding season.²⁰ Pope County urged Reichmann to do this due to soil tests that measured high nutrient levels on the field.²¹

26. At the request of Pope County and the City of Villard, Reichmann had added the various winter-time feeding sites over time. Originally, all of Reichmann's winter-time feeding activities occurred on Tract 2 (which was slightly larger at the time). Tract 1 West was added as a wintertime feeding site in the Fall of 2006, Tract 3 was added in the Fall of 2007, and Tract 1 East and Tract 4 were added in the Fall of 2010.²²

27. Reichmann also installed a system of engineered berms and buffers around Tract 2 in an attempt to prevent manure and nutrient runoff from that area.²³

28. No tract other than Tract 2 has had any berms or engineered filter strips established to control runoff.²⁴

29. Facts summarized in the next twelve Findings were not contested at the hearing and were confirmed by the testimony of Gerald Holien and Barry Bouwman.

30. The Pope County Natural Resource Conservation Service (NRCS) Soil Survey indicates a large portion (approximately 75 percent) of the land held or controlled by Reichmann that is available for cattle feeding or manure management is considered "sensitive." The soils consist primarily of saturated and coarse-textured soils.²⁵

31. A portion of the Reichmann lands is characterized by steep slopes (exceeding 6 percent),²⁶ as shown on a LiDAR map that graphically shows the slopes

¹⁸ Reichmann Pre-Filed Test., at 2; Tr., at 809:25-812:3 (Reichmann Test.).

¹⁹ MPCA Ex. 27.

²⁰ Tr. 909.

²¹ Tr. 440; Reichmann Ex. 15, at 3 (Soil Test Phosphorus/Olsen).

²² Reichmann Pre-Filed Test., at 8-9; Tr., at 814:17-816:12, 834:16-836:7, 888:20-889:12, 891:16-893:4 (Reichmann Test.).

²³ Reichmann Pre-Filed Test., at 6-8; Tr., at 838:24-839:8, 839:20-839:25 (Reichmann Test.); see Reichmann Ex. 9.

²⁴ Reichmann Ex. 9.

²⁵ Holien Prefiled Test., Ex. 1 ¶ 32.

²⁶ Tr. 170, 456. MPCA Trial Exhibit 33.

on the Reichmann property. Some of the slopes on the Reichmann winter feeding areas are greater than 6 percent.²⁷

32. The stream system that crosses the Reichmann winter feeding areas eventually discharges to Ashley Creek, which has been listed as an “impaired water” as the result of *E. coli* bacteria and dissolved oxygen levels.²⁸ Ashley Creek flows northeast to a system that joins the Sauk River, which empties into the Mississippi at St. Cloud.

33. *E. coli* and low dissolved oxygen levels are issues associated with the discharge of excess nutrient (manure).²⁹

34. A portion of the Reichmann lands is located within the Pope County Shoreland Management District.³⁰

35. The Pope County Geologic Atlas indicates that the groundwater underlying the Reichmann land is especially vulnerable to any nutrient application (leaching of nitrogen) because of coarse-textured soils and the high groundwater table and recharge area for the Bonanza Valley Aquifer.³¹

36. Certain soils on the Reichmann lands are considered sensitive, because they are “coarse” and rapidly transmit water – and any pollutants – to the groundwater. The irrigated fields are a coarse “Estherville” type soil that is subject to leaching.³²

37. In 2008, Pope County adopted a winter feeding ordinance that requires an administrative permit for winter feeding areas with a density over four head per acre and/or exceeding 300 head.³³ Prior to the issuance of a permit, the ordinance requires the permit applicant to file a manure management plan that conforms to Natural Resources Conservation Service (“NRCS”) standards in order to help determine the density of livestock that will be allowed at the proposed location. The ordinance further requires that a permit application be reviewed by representatives from the NRCS and the MPCA. The ordinance imposes certain setback requirements and authorizes the County Feedlot Officer to impose additional conditions or limits on livestock density for winter feeding areas.³⁴

38. During the 2009/2010 winter season, Reichmann fed a maximum of 3,405 head of cattle on the winter-time feeding sites.³⁵

²⁷ Holien Prefiled Test., Ex. 1 (Affidavit ¶ 32); Tr. 456.

²⁸ Holien Prefiled Test., Ex. 1 (Affidavit ¶ 30).

²⁹ Blaha Prefiled Test., at 3; Holien Prefiled Test., Ex. 1 (Affidavit ¶ 30).

³⁰ Holien Prefiled Test., Ex. 1 (Affidavit ¶ 31).

³¹ Holien Prefiled Test., Ex. 1 (Affidavit ¶ 32).

³² Tr. 457.

³³ Reichmann Ex. 14.

³⁴ *Id.*

³⁵ Reichmann Pre-Filed Test., at 9.

39. Pursuant to the Pope County ordinance, Reichmann applied for and received administrative winter feeding permits from Pope County for the 2010/2011 and 2011/2012 winter seasons.³⁶

40. Administrative winter feeding permits are issued by Pope County on an annual basis and must be renewed each year. Accordingly, Pope County has an opportunity each year to assess the condition of the winter-time feeding sites and to adjust stocking densities, management practices and other permit conditions in order to ensure that the winter-time feeding practices are managed in an appropriate manner. Pope County also inspects Reichmann's winter-time feeding sites during the course of the winter and can assess and take any necessary actions to ensure that the winter-time feeding sites do not cause a discharge.³⁷

41. In connection with its county permit applications, Reichmann worked with qualified consultants, as well as with Barry Bouwman, the feedlot consultant for Pope County, to develop management practices for the winter-time feeding sites. These management practices include placement of feeding devices on each site in areas that will minimize the potential for manure runoff; movement of feeding areas to different locations within the winter-time feeding sites to spread the manure; regular scraping and hauling of manure that accumulates in feeding areas; installation of additional fencing, including secondary fencing, to maintain setbacks of at least 300 feet from sensitive features, and implementation of regular soil testing, including some grid testing, to monitor the soil nutrient levels on the winter-time feeding sites.³⁸

TYPE/NUMBER OF CATTLE

42. The cattle on the winter feeding fields are beef cattle. In the past, the winter feeding cattle were "growers" or "stockers" that are not being fattened for market, but recently the cattle have been "cull cattle" that are being fattened for market.³⁹

43. In the past, Reichmann typically fed from 2,000 to 3,500 cattle on the winter feeding fields.⁴⁰

44. In the 2010/2011 winter season, Reichmann fed 2,115 head of cattle.⁴¹ The 2010/2011 number of cattle was limited by a permit from Pope County.⁴²

45. In the 2011/2012 winter season, Reichmann fed 2,885 head of cattle.⁴³ The 2011/2012 number of cattle was also limited by a permit from Pope County.⁴⁴

³⁶ Reichmann Pre-Filed Test., at 5; Reichmann Exs. 7-8.

³⁷ Reichmann Pre-Filed Test., at 6; Tr., at 417:18-419:15, 421:12-423:14 (Bouwman Test.).

³⁸ Reichmann Pre-Filed Test., at 6-8; Tr., at 833:24-834:15 (Reichmann Test.); Reichmann Exs. 7-8, 10.

³⁹ Tr. 445-46.

⁴⁰ Holien Prefiled Ex. 1 (Affidavit ¶ 17).

⁴¹ Theodore Reichmann Prefiled Test., at 3.

⁴² Reichmann Ex. 7.

⁴³ Theodore Reichmann Prefiled Test., at 3.

⁴⁴ Reichmann Ex. 8.

46. Reichmann varies the time the cattle are located on the winter feeding fields. In 2012, some cattle placed on the winter feeding fields were removed by January 2012. Later, cattle were returned to the fields.⁴⁵ One field (Tract 1) had differing amounts of cattle at different times (1,351 for 120 days and 850 for 90 days). This resulted in the extension of the winter feeding use of Tract 1 for more than 180 days.⁴⁶

47. It is undisputed that the cattle placed on the winter feeding fields are there more than 45 days and that the numbers exceed 1,000 head or “animal units.”

POPE COUNTY REGULATORY HISTORY

48. Since 2001, the County and the MPCA have raised concerns with Reichmann over the environmental impact of its winter feeding operation.⁴⁷ Both the County and the MPCA directed letters to Reichmann in 2001 expressing concerns about the winter feeding operation, and in September 2002 Pope County gave Reichmann a Notice of Violation citing Reichmann for conditions at the winter feeding sites, among other things.⁴⁸ Subsequent to these communications, there were other letters that notified Reichmann that a permit might be required.⁴⁹

49. In 2009, Reichmann did not obtain a permit and subsequently paid a \$1,000 fine.⁵⁰

50. Barry Bouwman has worked on contract as a consultant and agricultural inspector for Pope County since 2004.⁵¹

51. Bouwman is familiar with Reichmann’s winter feeding practices and he described the practices as variable and evolving over the years.⁵² He has worked with Reichmann to improve the operation into “something that is going to be better and compliant.”⁵³

52. The County’s permit requires setbacks from sensitive features such as streams. Reichmann has been working with the county to establish the setbacks, but it has been an ongoing process.⁵⁴

53. Bouwman noted that in 2011 Reichmann installed additional fencing but that on the Reichmann property, “its almost physically impractical or impossible to

⁴⁵ Scheirer Prefiled Test., at 6 (Exhibit 2 annotations); Holien Prefiled Test at 5; Tr. 913-14.

⁴⁶ Tr. 972-73.

⁴⁷ Tr. 882.

⁴⁸ *Id.*

⁴⁹ Tr. 882-85.

⁵⁰ Affidavit of Barry Baumann (filed October 24, 2011).

⁵¹ Tr. 398-99.

⁵² Tr. 402.

⁵³ Tr. 403.

⁵⁴ Tr. 422 (Testimony of Bouwman).

measure that 300 feet from all these features. It makes a fencing system that is hard to work with.”⁵⁵

54. Reichmann and the County do not agree on the interpretation of the County permit.

55. Bouwman interprets the permit to limit Reichmann to a certain number of cattle per each Tract identified in the permit.⁵⁶ Reichmann interprets the permit to allow Reichmann to exceed the designated number or the time limit, so long as the “days cattle are on the property times the number of cattle” is less than “180 days times the approved number of cattle.” Reichmann refers to the result as “accumulation days.”⁵⁷

56. Reichmann does not submit records to the County so that it can verify that the “accumulation days” were not exceeded.⁵⁸

57. Bouwman does not review manure management plans attached to the permit application but instead trusts that they were prepared correctly because they are prepared by a professional consultant.⁵⁹ Bouwman reviews the soil sample data summarized in the plan to make sure that the phosphorus levels are not increasing to the point where action to reduce those levels needs to be taken.⁶⁰ He does not, however, drill down to determine whether the soils data or manure data stated on the face of the plan is current or accurate.⁶¹

58. According to Bouwman, Pope County considers winter feeding to be different than feeding cattle on crop residue, and that winter feeding is not a pasture practice.⁶²

59. In Bouwman’s opinion, “feedlot conditions” develop on the Reichmann property.⁶³

60. The Pope County permit does not authorize Reichmann to discharge pollutants from its fields.⁶⁴

61. Pope County would support a state permit for the Reichmann operation.⁶⁵

62. The MPCA cannot enforce the County permit.⁶⁶

⁵⁵ Tr. 422-23.

⁵⁶ Tr. 462.

⁵⁷ Tr. 967.

⁵⁸ Tr. 462

⁵⁹ Tr. 416, 455.

⁶⁰ Tr. 416.

⁶¹ Tr. 454-55.

⁶² Tr. 448-49.

⁶³ Tr. 421, 441-42.

⁶⁴ Tr. 466.

⁶⁵ Tr. 471

⁶⁶ Tr. 180.

63. The existence or non-existence of the County ordinance does not change state permit requirements.⁶⁷ As a result, whether Reichmann complies with the County permit is not relevant to a determination as to whether Reichmann requires a state or federal permit.

64. The administrative permits that were issued to Reichmann by Pope County for the 2010/2011 and the 2011/2012 winter feeding seasons authorized Reichmann to place a maximum of 1,939 head of cattle on the winter-time feeding sites—including a maximum of 1,413 head on Tract 1, 88 head on Tract 2, 156 head on Tract 3, and 282 head on Tract 4, all for a maximum of 180 days. The maximum stocking numbers under the permit were assessed based on “accumulation days,” calculated based on the number of cattle and the number of days such cattle were present. Thus, the permits authorized Reichmann to stock cattle for a maximum of 349,020 accumulation days, including a maximum of 254,340 accumulation days on Tract 1, 15,840 accumulation days on Tract 2, 28,080 accumulation days on Tract 3, and 50,760 accumulation days on Tract 4.⁶⁸

65. During the 2010/2011 winter season, Reichmann fed a maximum of 1,344 head for 120 days, or 161,280 accumulation days, on Tract 1; a maximum of 71 head for 120 days, or 8,520 accumulation days, on Tract 2; a maximum of 450 head for 30 days, 13,500 accumulation days, on Tract 3; and a maximum of 250 head for 120 days, or 30,000 accumulation days, on Tract 4. Thus, the total accumulation days during the 2010/2011 winter season was 213,300, which is nearly 40-percent lower than the number of accumulation days authorized under the permit.⁶⁹

66. During the 2011/2012 winter season, Reichmann fed a maximum of 1,351 head for 120 days plus a maximum of 850 head for 90 days, or 238,620 accumulation days, on Tract 1; a maximum of 190 head and 152 head for 50 days each, or 17,100 accumulation days, on Tract 3, and a maximum of 344 head for 120 days, or 41,280 accumulation days, on Tract 4. Tract 2 was used solely as an acclimation and departure site, where cattle would be placed for a few days when arriving and leaving the other winter-time feeding sites, during the 2011/2012 winter season. Thus, the total accumulation days during the 2011/2012 winter season was 297,000, which is 15-percent lower than the number of accumulation days authorized under the permit.⁷⁰

MPCA REGULATORY HISTORY

67. The MPCA supports the practice of grazing livestock on crop residue so long as it does not result in feedlot conditions. To clarify its position, in 2008 the MPCA adopted a fact sheet entitled “Managing Livestock Feeding on Pasture and Crop Residue.”⁷¹ The fact sheet states that “[d]eterminations of whether or not a feeding area is an animal feedlot will continue to be made on a case-by-case basis. Sites where

⁶⁷ Tr. 61, 454.

⁶⁸ Tr., at 424:8-425:9 (Bouwman Test.); Reichmann Exs. 7-8, 14.

⁶⁹ Reichmann Pre-Filed Test., at 3.

⁷⁰ *Id.*

⁷¹ Holien Prefiled Ex. 1 (Affidavit/Exhibit 2).

livestock are confined and fed for 45 days or more in a 12-month period, and that lack vegetative cover, meet the definition of a feedlot.” The fact sheet also references the criteria for an NPDES permit, including if the total number of livestock increases to 1,000 animal units or greater. The fact sheet makes clear that the development of “feedlot conditions” will trigger permitting. The fact sheet concludes with a set of pictures showing how vegetative cover is maintained in a winter feeding area.⁷² According to MPCA witness Lisa Scheirer (“Scheirer”), who is familiar with permitting requirements, the facility in the pictures would not require a permit as vegetative cover was present in the growing season.⁷³

68. Since 2001, the MPCA has expressed concerns to Reichmann over its winter feeding operations.⁷⁴ However, in the past, when MPCA attempted to enforce its regulations, Reichmann had its legal counsel direct letters to the MPCA in which Reichmann threatened to bring legal action against the MPCA.⁷⁵

69. Scheirer noted that it is the MPCA’s practice to try to resolve issues involving compliance before enforcement action is taken.⁷⁶

70. In February 2010, the MPCA notified Reichmann that it was in violation of state law, in part because it was discharging to waters of the state.⁷⁷ The MPCA also notified Reichmann that it needed to apply for an NPDES/SDS permit if it wanted to continue to feed the same number of cattle that it had in the past.⁷⁸

71. Reichmann has argued that its winter feeding practice should be considered a “pasture” within the meaning of state law, and resisted any efforts to subject the operation to a permit.⁷⁹

72. In October 2010, the MPCA issued Reichmann a proposed administrative order that would have required Reichmann to reduce winter feeding numbers or obtain a permit.⁸⁰

73. Reichmann initially agreed to obtain a permit.⁸¹

74. Based on this conceptual agreement, the MPCA allowed Reichmann to continue winter feeding in compliance with Pope County requirements, for one additional season.⁸²

⁷² *Id.*

⁷³ Tr. 73.

⁷⁴ Tr. 882.

⁷⁵ Tr. 876-77.

⁷⁶ Tr. 64.

⁷⁷ Holien Prefiled Test., Ex. 1 (Affidavit Ex. 6); Tr. 886.

⁷⁸ *Id.*

⁷⁹ Tr. 876.

⁸⁰ Holien Prefiled Test., Ex. 1 (Affidavit Ex. 7).

⁸¹ Tr. 65-66, 451.

⁸² Tr. 66.

75. Despite this agreement, after the 2010/2011 winter feeding season, Reichmann did not apply for an NPDES/SDS permit.⁸³ As a result, the MPCA issued a new administrative order requiring Reichmann to get an NPDES/SDS permit or reduce cattle numbers, and the instant proceeding commenced.⁸⁴

76. Reichmann has engaged in a number of practices that are intended to reduce the risk of pollution from its winter feeding operation. However, if Reichmann is found to be exempt from permitting, as a “pasture,” it could cease doing those activities without consequence with regard to the MPCA.⁸⁵

77. Although MPCA is able to enforce statutory and rule prohibitions against discharges, as a practical matter, MPCA cannot monitor unpermitted facilities for discharges because it lacks the staff to do so and would not even know if those operations existed.⁸⁶

LEGISLATIVE CHANGE

78. After this hearing had been ordered, Reichmann requested the Minnesota Cattlemen’s Association to lobby the Minnesota legislature for a change to the “pasture” definition that would exempt the Reichmann operation from permitting.⁸⁷

79. Reichmann did not testify at the legislative hearing.⁸⁸

80. The example of an exempt operation discussed at the hearing was “turning out 20 or 30 head of cattle” on a “couple hundred acres of ground.”⁸⁹

81. Ted Reichmann agreed that grazing 30 cattle on a couple hundred acres of corn did not in fact describe his operation.⁹⁰

82. The new definition provides that:

‘Pasture’ means areas where livestock graze on grass or other growing plants. Pasture also means agricultural land where livestock are allowed to forage during the winter time and which land is used for cropping purposes in the growing season. In either case, the concentration of animals must be such that a vegetative cover, whether of grass, growing plants, or crops, is maintained during the growing season except in the immediate vicinity of temporary supplemental feeding or watering devices.⁹¹

⁸³ Tr. 66. Reichmann Ex. 8 (MPCA September 22, 2011, letter).

⁸⁴ Tr. 81, 451.

⁸⁵ Scheirer Prefiled Test. at 104; Tr. 21.

⁸⁶ Scheirer Prefiled Test., at 4-5; Tr. 22.

⁸⁷ Tr. 879.

⁸⁸ *Id.*

⁸⁹ Moldestad Aff., Ex. 1, at 3 (filed October 24, 2011).

⁹⁰ Tr. 880.

⁹¹ Minn. Stat. § 116.07, subd. 7d (2012) (as amended by 1st Spec. Sess. 2011, ch. 2, art. 4, § 22).

83. Under the new definition, the key issues are whether the livestock are “allowed to forage during the winter time” and whether the “concentration of animals is such” that “vegetative cover” is maintained “during the growing season except in the immediate vicinity of temporary supplemental feeding or watering devices.”

ALLOWED TO FORAGE

84. At the hearing, the MPCA witnesses took the position that the cattle in the Reichmann winter feeding operation are not “allowed to forage” because there is no forage present sufficient to sustain the animals for more than a short time at the numbers typically stocked. After that short period of time, the forage has been consumed, scraped up with manure and waste feed that Reichmann removes from the fields, or is manure covered and essentially functioning as “bedding.”⁹²

85. Reichmann argues that some acceptable forage remains outside the area where the cattle are fed, watered and sheltered and that “the cattle will regularly graze and forage on this vegetation and crop residue throughout the winter in addition to the supplemental feed we provide.”⁹³

86. Reichmann introduced into evidence the glossary from the National Range and Pasture Handbook. Reichmann Ex. 17. This exhibit defined “forage” as “(n) All browse and herbage that is available and acceptable to grazing animals, or that may be harvested for feeding purposes. (v) Act of consuming forage. Syn. graze.”⁹⁴

87. “Graze” is defined by the same handbook as “[t]he consumption of standing forage by livestock or wildlife. To put livestock to feed on standing forage.”⁹⁵

88. “Supplemental feeding” is defined by the same handbook as “Supplying concentrates or harvested feed to correct deficiencies of the range diet. Often erroneously used to mean emergency feeding.”⁹⁶

89. The MPCA presented testimony from MPCA inspector Gerald “Jerry” Holien (“Holie”). Holien has lived on a farm his entire life, has an agronomy degree, was a county feedlot officer for 18 years, and has been an MPCA feedlot inspector for 12 years. Holien has himself raised beef cattle.⁹⁷

90. Holien has observed the Reichmann winter feeding operations on 10 occasions, and also reviewed MPCA file photos taken by other inspectors and satellite pictures on “Google Earth.”⁹⁸ Holien provided sets of photographs from visits to the winter feeding fields in 2011 (March and April) and 2012 (twice in March, and in April,

⁹² Tr. 84-180 (Holie).

⁹³ Theodore Reichmann Prefiled Test., at 3.

⁹⁴ Reichmann Ex. 17, at 21.

⁹⁵ Reichmann Ex. 17, at 25.

⁹⁶ Reichmann Ex. 17, at 56.

⁹⁷ Holien Prefiled Test., Exhibit 1 (Affidavit ¶ 1).

⁹⁸ Tr. 227-28.

May and June). Holien also visited the site in January 2012 and has driven by on other occasions.⁹⁹

91. During the times Holien observed Reichmann's cattle, he has not observed foraging behavior or adequate forage on the Reichmann winter feeding fields.¹⁰⁰ Holien opined that the cattle were on "full feed."¹⁰¹ Bouwman also observed that the cattle were being fed "full feed for a gain."¹⁰² In Holien's opinion, the fact that an individual cow might have its head down did not necessarily mean it was foraging because cows put their heads down for a variety of reasons.¹⁰³

92. Holien compared the behavior of the Reichmann cattle to other cattle that he had observed foraging on crop residue, as shown in pictures in MPCA Exhibit 28. The cattle in the Exhibit 28 pictures were stocked on corn residue at a density consistent with foraging, were moving as a group through crop residue, and were not being fattened for market.¹⁰⁴

93. In his prefiled testimony, Holien identified a number of scholarly articles, including one by Dr. Cody Wright, that identified a typical density for cattle foraging on crop residue as 2-4 acres per cow.¹⁰⁵ The cattle on the Reichmann site range from 4 to 7 cows per acre, but according to Holien, the true density is even greater because the cattle tend to mass in a herd near the feed bunks, which is an area of about 20 acres.¹⁰⁶

94. Holien observed that by March, any vegetative material that remains on Reichmann's winter feeding fields is soiled by urine and solid manure and is not suitable for forage.¹⁰⁷ The cattle he observed were using the vegetative material that remained for bedding, as they would do in a "monoslope barn," which is a typical feedlot arrangement where crop residue is used for bedding and becomes manure covered.¹⁰⁸

95. Bouwman has observed foraging after the cattle are first placed on the winter feeding fields in the late fall, but stated that "after the first of the year it would be a big decline what they get out there for foraging."¹⁰⁹

96. Reichmann did not present any pictures or other evidence to document that the winter-feeding cattle were foraging. On cross-examination, Ted Reichmann

⁹⁹ See generally Holien Prefiled Test.

¹⁰⁰ Holien Prefiled Test., at 7.

¹⁰¹ Tr. 124, 231-32, 242.

¹⁰² Tr. 445.

¹⁰³ Tr. 108.

¹⁰⁴ Tr. 133-38.

¹⁰⁵ Holien Prefiled Ex. 10 – 13.

¹⁰⁶ Tr. 142; Ex. 29 (two pictures).

¹⁰⁷ Tr. 97-98.

¹⁰⁸ Tr. 98-100.

¹⁰⁹ Tr. 446.

identified individual animals in some of Holien's March 2012 pictures that he believed might have been foraging and Dr. Wright did the same.¹¹⁰

97. Dr. Wright, an animal nutrition specialist at South Dakota State University, testified regarding the availability of forage on the Reichmann winter feeding fields.¹¹¹ However, Dr. Wright did not view the winter feeding operation in the winter.¹¹²

98. On the basis of pictures, Dr. Wright was confident that forage was present that cattle could graze on, even as shown in pictures where the winter feeding fields were flooded with manure-contaminated water or covered with snow, as was the case in March 2011.¹¹³

99. However, Dr. Wright conceded that the feed provided to the cattle on the Reichmann winter feeding fields did not meet the definition of "supplemental feeding" in the National Range and Pasture Handbook.¹¹⁴ Although Dr. Wright testified that Ted Reichmann told him the cattle only received 90 percent of the feed ration to encourage forage consumption, Reichmann introduced no evidence to back this up.¹¹⁵

100. Holien denied that the animals identified by Reichmann and Wright in Holien's pictures were foraging.¹¹⁶ Holien maintains that, when he has viewed the winter feeding operations in January and March, the cattle could not have been foraging because there was no forage present for them to forage on.¹¹⁷ Holien distinguishes animals that might chew a bit of plant matter out of curiosity from animals that are actually feeding on forage.¹¹⁸

101. Dr. Wright's testimony with regard to the availability of forage is less credible than the testimony of Gerald Holien. Dr. Wright made no direct observations, but was relying on pictures that he did not take. Although Mr. Holien did not view the site every day, he took many pictures of the site over a couple of different years and was in a better position to form a judgment with regard to whether forage was present and whether or not the vegetative material that was present was manure covered, in particular, on the basis of smell and direct visual observation.

102. Dr. Wright also has limited credibility because he made a number of statements in his prefiled testimony that he conceded that were without adequate basis.

103. In his prefiled testimony, Dr. Wright stated that "the fact that the same land is used to grow crops during each growing season addresses the concerns with a traditional cattle feedlot about the build-up of nutrients on the land because the crops

¹¹⁰ Reichmann Prefiled Exs. 5, 6; Tr. 564-68.

¹¹¹ Wright Prefiled Test.

¹¹² Tr. 559-60, 570.

¹¹³ Tr. 611.

¹¹⁴ Tr. 595-96.

¹¹⁵ Tr. 599-602.

¹¹⁶ Tr. 94-131.

¹¹⁷ Tr. 125, 136.

¹¹⁸ Holien Prefiled Test., at 7.

naturally remove the nutrients from the soil and use their nutrients to grow.”¹¹⁹ At the hearing, Dr. Wright admitted that he was not familiar with agronomic rates.¹²⁰ He also admitted that, “I don’t know that we have a handle on what amount of nutrients in a given location on the field actually is.”¹²¹

104. In his prefiled testimony, Dr. Wright stated that “[c]rop residue that remains serves to reduce the risk of runoff that commonly occurs in traditional feedlots.”¹²² At the hearing, Dr. Wright admitted that he was not an expert on runoff models, and that he had not performed any analysis to determine if any vegetative matter present on the Reichmann property would reduce the risk of runoff.¹²³

105. In his prefiled testimony, Dr. Wright stated that “Reichmann has implemented sufficient and appropriate measures to control surface water runoff from its winter feeding sites as a result of berms and buffers, regular soil testing, nutrient management practices including scraping and removing a portion of manure from the feeding sites each year.”¹²⁴

106. At the hearing, Dr. Wright admitted that he was not an engineer and that he was depending on “approvals of the various agencies and Mr. Reichmann’s comments” when he stated that Reichmann had implemented sufficient and appropriate measures to control surface water runoff.¹²⁵ With regard to berms, Dr. Wright also admitted that he had only looked in depth at one site, Tract 2, when he visited, and was not aware of whether the other sites had berms (they do not).¹²⁶ With regard to regular soil testing, Dr. Wright noted that he would expect an annual test for nitrogen,¹²⁷ which in fact Reichmann has not done on the winter feeding fields.¹²⁸

107. Based on the testimony and the evidence introduced at the hearing, the cattle on the Reichmann winter feeding sites are not “allowed to forage on agricultural land” within the meaning of Minn. Stat. § 116.07, subd. 7(d). The fact that the cattle might be able to forage for a short period of time when they are first placed on the winter feeding fields or have some incidental vegetation available to them at the margins of the fields does not support a conclusion that the winter feeding cattle are “allowed to forage.” The evidence submitted at the hearing establishes that the Reichmann cattle are on full feed throughout the time they are on the winter feeding fields, and that after they are on the fields for a few weeks, the incidental vegetation is downed and soiled and not truly available as “forage.”

¹¹⁹ Wright Prefiled Test., at 5.

¹²⁰ Tr. 620.

¹²¹ Tr. 622.

¹²² Wright Prefiled Test., at 5.

¹²³ Tr. 624.

¹²⁴ Wright Prefiled Test., at 5.

¹²⁵ Tr. 626, 628.

¹²⁶ Reichmann Ex. 9.

¹²⁷ Tr. 62.

¹²⁸ Tr. 745 (testimony of Brent Werven).

VEGETATIVE COVER

108. Under federal law, a facility is an “animal feeding operation” or “AFO” if animals are confined and fed or maintained for a total of 45 days or more in any 12-month period and “crops, vegetation, forage growth, or post-harvest residues are not sustained in the normal growing season over any portion of the lot or facility.”¹²⁹

109. Under state rules, an “animal feedlot” means “a lot or building or combination of lots and buildings intended for the confined feeding, breeding, raising, or holding of animals and specifically designed as a confinement area in which manure may accumulate, or where the concentration of animals is such that a vegetative cover cannot be maintained within the enclosure. For purposes of these parts, open lots used for the feeding and rearing of poultry (poultry ranges) shall be considered to be animal feedlots. Pastures shall not be considered animal feedlots under these parts.”¹³⁰

110. Although the federal definition of AFO refers to the maintenance of “crops, vegetation, forage growth, or post-harvest residues” in the growing season, the state definition of animal feedlot only refers to the maintenance of “a vegetative cover.”

111. No party disputes that when the cattle are first placed on the winter feeding fields there is vegetative cover.¹³¹ However, at the hearing, the MPCA introduced pictures taken in 2011 and 2012 that showed that, by January in some cases and by March in others, substantial portions of the Reichmann winter feeding fields were manure-covered and lacked substantial vegetative cover. Although winter conditions were more severe in 2011, even under the “ideal” conditions in 2012 (when snow cover would not have prevented cattle from roaming over the fields), substantial areas of the fields were manure-covered or had been scraped to remove manure, which removed vegetative cover.¹³²

112. Lisa Scheirer, who took pictures of the winter feeding fields in January 2012, indicated that although some downed crop residue was present in the fields that were viewed in January 2012, she did not consider that crop residue to constitute “vegetative cover.”¹³³

113. One field photographed by Scheirer did not have vegetative cover because it had been scraped (according to Ted Reichmann) three times since December 2011.¹³⁴

114. Bouwman noted that the vegetative cover on the Reichmann fields is variable with the type of winter and type of post-harvest residue and the number of

¹²⁹ 40 CFR § 122.23(b)(1).

¹³⁰ Minn. R. 7020.0300, subp. 3.

¹³¹ Tr. 116, Tr. 445-46.

¹³² Holien Prefiled Test., Ex. 1 (Affidavit with pictures from 2011) and Exs. 2 and 3 (pictures from March 2012); Scheirer Prefiled Test., Ex. 2 (January 2012 pictures).

¹³³ Tr. 74-80.

¹³⁴ Tr. 76.

cattle. He indicated that he had observed cattle on very good vegetation and “as the season progresses some of it does change a lot.”¹³⁵

115. Holien, who took pictures of the winter feeding fields in March and April 2011 and March 2012, observed that substantial areas of the fields lacked vegetative cover on all his visits to the sites.¹³⁶

116. Reichmann submitted no pictures at the hearing to substantiate his claim that vegetative cover is present in the winter feeding fields, other than pictures previously submitted with Ted Reichmann’s affidavit filed in October 2011 that Holien claimed showed unused fields.¹³⁷ However, for the hearing, Reichmann identified certain of Holien’s pictures that Reichmann claimed showed vegetative cover.¹³⁸

117. Within the agricultural community, “vegetative cover” is generally understood to refer to growing plants or crop residue and does not require a full “canopy” that is sufficient to completely shield the soil from all precipitation.¹³⁹

118. In addition to shielding the ground from the impact of precipitation, “vegetative cover” also reduces runoff by slowing down and impeding the flow of water off the landscape and by using some of the water to nourish the growing plants.¹⁴⁰

119. Although no cattle are actually present on the winter-time feeding sites during the normal growing season, Dr. Cody Wright testified that if cattle were placed on land containing a vegetative cover during the normal growing season at the same densities as Reichmann’s winter-time feeding sites and using the same feeding and management practices, the vegetative cover would be maintained during the normal growing season except in the vicinity of supplemental feeders and waterers.¹⁴¹

120. MPCA Exhibit 29 includes two 2012 pictures (one close-up and one of the area) that show the extent of the area where manure cover occurs and vegetation is not present.

121. Although Dr. Wright stated in his prefiled testimony that “the cattle will use and deposit manure across the entire site during the course of the winter,” at the hearing, he modified that statement to make clear that he did not mean that the manure from the cattle was evenly distributed.¹⁴²

¹³⁵ Tr. 404.

¹³⁶ Holien Prefiled Test., at 3; Tr. 88.

¹³⁷ Holien Prefiled Test., Ex. 1 (Affidavit ¶¶ 38-41).

¹³⁸ Reichmann Exs. 5, 6.

¹³⁹ Tr., at 767:10-767:20 (Rehm Test.); Tr., at 825:5-825:25 (Reichmann Test.).

¹⁴⁰ Tr., at 491:7-492:23 (Schwint Test.); Tr., at 766:13-767:9 (Rehm Test.).

¹⁴¹ Wright Pre-Filed Test., at 6.

¹⁴² Tr. 614.

122. Dr. Wright also admitted that Exhibit 29 (which shows the feeding area on the “Peterson” area of Tract 1) looks more like a traditional feedlot.¹⁴³

123. Based on the testimony and the evidence introduced at the hearing, the MPCA has established that there is no vegetative cover over significant portions of the winter feeding fields during the time that the cattle are present. The MPCA also established that the area where there is no vegetative cover extends beyond the area where manure might be removed in a traditional winter feeding area (i.e., the immediate vicinity of feeding and water devices). The presence of incidental vegetation along the edges of roads or in areas where the cattle are not present does not mean that a vegetative cover is present within the meaning of Minn. Stat. § 116.07, subd. 7d or 40 CFR § 122.23.

GROWING SEASON

124. There is no dispute that Reichmann grows crops on its winter feeding fields.

125. However, the MPCA asserts that under the Minn. Stat. § 116.07, subd. 7d, definition,¹⁴⁴ the *concentration of animals* must be such that a vegetative cover must be maintained during the growing season and not simply *planted* during the growing season.

126. Holien asserts that Reichmann did not maintain a vegetative cover of crops “during the growing season” because the row crops Reichmann typically plants on the winter feeding fields do not emerge until well after the growing season has commenced, and there is no vegetative cover of crop residue remaining on the winter feeding fields during the winter feeding activity.¹⁴⁵

127. Holien introduced 2012 pictures of the Reichmann winter feeding fields showing how grass was fully emerged outside the winter feeding areas but that a crop was not even visible on some fields, or barely visible in others.¹⁴⁶

128. Holien noted that the concentration of cattle was such, that in particular on Tract 1, a vegetative cover could not be maintained and that a vegetative cover had to be re-established by planting a new crop.¹⁴⁷

129. Scheirer maintained that pictures included in an MPCA fact sheet illustrated how a person could have a winter feeding area with a vegetative cover emerging in the spring.¹⁴⁸

¹⁴³ Tr. 618.

¹⁴⁴ See Finding 82.

¹⁴⁵ Tr. 233-34.

¹⁴⁶ Holien Prefiled Test., Exs. 4, 5.

¹⁴⁷ Holien Prefiled Test., at 3; Tr. 187 88.

¹⁴⁸ Tr. 70 71.

130. Reichmann introduced as an exhibit the glossary section of The National Range and Pasture Handbook.¹⁴⁹ This reference defines “growing season” as “that portion of the year when temperature and moisture permit plant growth.”¹⁵⁰

131. At the hearing, Ted Reichmann took the position that, to a farmer, “growing season” means “crop season” and does not correspond to the time that other plants, such as grasses or other non-row crops, are growing.¹⁵¹ Ted Reichmann testified that vegetative cover was present when seeds were planted, not when the plant actually emerged and developed leaves.¹⁵²

132. Dr. George Rehm maintained that the normal growing season is the date of planting to the first frost, typically the last week in April for planting and whenever frost occurs.¹⁵³ Dr. Rehm agreed that vegetative cover included growing plants and crop residue.¹⁵⁴

133. Mr. Holien noted that some crops, in particular alfalfa and winter wheat or rye, emerge at the beginning of the growing season.¹⁵⁵ Holien added that, if cattle numbers were not excessive and certain planting techniques were followed, crop residue from the prior crop would provide vegetative cover until the new row crop emerged.¹⁵⁶

134. Based on the testimony and the evidence introduced at the hearing, the MPCA has established that there is no vegetative cover “maintained,” either of crop residue or of growing plants, on the Reichmann winter feeding fields during the “growing season,” as defined by the National Range and Pasture Handbook, which is an authoritative reference introduced into evidence by Reichmann. Reichmann establishes a vegetative cover for only a portion of the growing season, after its crops emerge.

DOCUMENTED DISCHARGES

135. The MPCA maintains that Reichmann’s winter feeding fields have discharged pollutants on a number of occasions.

136. In 2007, Bouwman took water samples from the Reichmann winter feeding location (then Tract 2). Based on the samples, Bouwman concluded that the winter feeding field was discharging pollutants to the intermittent stream.¹⁵⁷

¹⁴⁹ Reichmann Ex. 17.

¹⁵⁰ Reichmann Ex. 17, at 27.

¹⁵¹ Tr. 823-24.

¹⁵² Tr. 921-22.

¹⁵³ Tr. 766.

¹⁵⁴ Tr. 767.

¹⁵⁵ Tr. 234-35.

¹⁵⁶ Holien Prefiled Test., at 4.

¹⁵⁷ Bouwmann Affidavit (filed October 24, 2011).

137. At the hearing, Ted Reichmann did not dispute that the discharge had been documented, but claimed that he had changed his winter feeding practices by reducing the population of cattle in the “acclimation” area (Tract 2).¹⁵⁸

138. In March 2010, the MPCA sent Lee Engel, an MPCA employee whose job primarily involves collecting samples, to sample the stream system adjacent to the Reichmann winter feeding fields to determine if the winter feeding operation was causing a discharge.¹⁵⁹

139. Engel collected samples upstream and downstream of the Reichmann winter feeding operation. A sample was also taken upstream of the winter feeding operation, but downstream of one of Reichmann’s dairy confined feeding operations.¹⁶⁰

140. During the sampling, Engel observed a discharge to the stream, which at the time was flowing, at sample site 3, which was located near where Tract 2 (“acclimation area”) meets the stream. Engel observed that manure (based on color and smell) had traveled over the vegetation near the stream and he observed that the stream smelled like manure at that location.¹⁶¹

141. Engel followed MPCA sampling protocol for a study of this kind and used sterilized and calibrated equipment to obtain the samples and other readings.¹⁶²

142. Engel delivered the samples to Jeff Brenner, the Inorganic Laboratory Supervisor of the Environmental Health Lab at the Minnesota Department of Health. Brenner supervised the analysis of the samples. Brenner, who is an expert in lab analytical practices, offered the opinion that the results presented in the report accurately reflect the chemistry of the water sampled.¹⁶³

143. Gerald Blaha is an expert with regard to analysis of water quality samples. After the analysis was complete, Mr. Blaha reviewed the sample results. Based on his review, Mr. Blaha offered his opinion that the winter feeding operation is resulting in discharges of pollutants related to manure to the unnamed stream. Blaha stated that the test results that supported his conclusion because, after comparing a sample upstream from the winter feeding location but downstream from one of the Reichmann registered facilities with a sample taken downstream from the winter feeding area, the results for ammonia and Kjeldahl nitrogen are higher in the sample below the winter feeding area. Blaha noted that the E. coli bacteria counts were much higher at the sample downstream from the winter feeding location compared to the sample downstream from the registered dairy site.¹⁶⁴

¹⁵⁸ Tr. 830.

¹⁵⁹ Engel Prefiled Test., at 3.

¹⁶⁰ *Id.*

¹⁶¹ Engel Prefiled Test., at 3 and Exhibit 1 (Affidavit).

¹⁶² Engel Prefiled Test., at 2-5.

¹⁶³ See Brenner Prefiled.

¹⁶⁴ Blaha Prefiled.

144. At the hearing, Reichmann did not question these conclusions or present any contrary evidence.

145. In addition to the sample results, Holien presented photographic evidence of discharges that he had observed in March 2011. Holien noted that in March 2011, the winter feeding fields had not been scraped free of manure and that there was ponded water in the fields. Holien observed the ponded water discharging to a tile line inlet and the road ditch.¹⁶⁵

146. At the hearing, Ted Reichmann admitted that certain winter feeding fields were full of ponded water at the time of Holien's observations.¹⁶⁶

147. George Schwint performed modeling on the winter feeding operation using the Minnesota Feedlot Annualized Runoff Model (MinnFARM), which is used to predict whether a particular site presents a pollution hazard.¹⁶⁷ Schwint concluded that based on the MinnFARM model, the current Reichmann winter feeding operation would be predicted to cause a discharge.¹⁶⁸ Modeling is one tool that the MPCA uses to determine whether an operation requires a permit to address pollution hazards.¹⁶⁹

148. At the hearing, Schwint admitted that he had inadvertently reversed "length" and "width" numbers for the model, but maintained that this would not change the outcome of the model.¹⁷⁰

149. Ted Reichmann admitted that in the opinion of his consultant Cris Skonard, the only way that the winter feeding operation could meet standards for discharge applicable to permitted feedlots was to construct a discharge control structure similar to a permitted feedlot.¹⁷¹

MANURE MANAGEMENT PLANS

150. At the hearing, Reichmann introduced a number of manure management or nutrient management plans that he developed, in part to comply with the Pope County winter feeding ordinance.¹⁷² Reichmann argued that the fact it had developed these plans for the county means that it has met state permitting requirements. Reichmann also submitted the plans to bolster its claims that the operation is not causing impacts to the environment.

151. A "manure management plan" or "nutrient management plan" is intended to ensure manure generated by animal agriculture is appropriately used so that it

¹⁶⁵ Holien Prefiled Test., at 11; Ex. 1 (affidavit pictures 12, 13, 29, 39).

¹⁶⁶ Tr. 861-62.

¹⁶⁷ Schwint Prefiled Test., at 2.

¹⁶⁸ Schwint Prefiled Test., at 6.

¹⁶⁹ Schwint Prefiled Test., at 3.

¹⁷⁰ Tr. 515.

¹⁷¹ Tr. 929, 964; MPCA Ex. 42 (describes applicable criteria but does not identify that a discharge control structure must be constructed).

¹⁷² Reichmann Exs. 7, 8, 11, 12, 13, 27, 28.

benefits the crops and does not impact the environment.¹⁷³ Research by Land Grant Research institutions has proven that over-application of manure can lead to negative environmental impacts.¹⁷⁴ Winter application of manure is especially problematic.¹⁷⁵

152. The Pope County winter feeding ordinance requires Reichmann to submit a manure management plan.¹⁷⁶

153. Manure management plans are required for permitted feedlots, but are not required for facilities that fit the state definition of “pasture.”¹⁷⁷ As a result, if Reichmann’s winter feeding operation is “pasture,” it would no longer be subject to the requirement to prepare a manure management plan, and the MPCA would have no opportunity to ensure that any plans that Reichmann prepared were adequate.¹⁷⁸

154. The MPCA presented opinions regarding whether the manure management plans prepared by Reichmann would meet state standards applicable for permitted facilities. Paul Brietzke (“Brietzke”), an MPCA pollution control specialist with extensive private sector and regulatory experience involving manure management plans, was qualified as an expert on manure management planning. Reichmann presented the individuals who prepared the plans as witnesses, but did not offer any expert testimony.

155. Brietzke reviewed the 2010 Anez manure management plan submitted to Pope County and a 2011 Centrol “nutrient management plan” addressing manure management for Reichmann’s two registered feedlots (Sections 17 and 18) as well as its winter feeding fields.¹⁷⁹

156. The Anez plan is submitted to Pope County before the winter feeding permit is issued and is intended to justify the stocking numbers proposed for the permit.¹⁸⁰ The Centrol Plan addresses all the manure generated by the Reichmann operation (winter feeding and registered feedlots) and is used to determine whether additional nutrients need to be applied commercially to meet predicted crop needs, or whether there has been an over-application.¹⁸¹ The Centrol plan does not provide guidance to Reichmann concerning the number of cattle that could appropriately be stocked on the winter feeding fields, but only indicates whether additional chemical fertilizer is needed.¹⁸²

157. Brietzke’s opinion was that neither plan met MPCA rules governing such plans due to deficiencies in the manure testing and soil testing data, and that the plans

¹⁷³ Tr. 257.

¹⁷⁴ Tr. 259.

¹⁷⁵ Brietzke Prefiled Test., at 5.

¹⁷⁶ Reichmann Ex. 14.

¹⁷⁷ Scheirer Prefiled Test., at 2-3.

¹⁷⁸ Scheirer Prefiled Test., at 3-4.

¹⁷⁹ Brietzke Prefiled Test., at 7.

¹⁸⁰ Tr. 352-53.

¹⁸¹ Tr. 743

¹⁸² Tr. 742-43.

relied on certain assumptions that could not be justified in concluding that manure had not been applied in excess of agronomic (economic crop production) rates.¹⁸³

MANURE TESTING

158. Breitzke reviewed the data that was included with the 2011 Centrol plan and did not find any sample that came from the winter feeding cattle.¹⁸⁴

159. At the hearing, Brent Werven of Centrol admitted that the only sample he used for his nutrient management plans was taken from dairy cattle at the registered feedlot.¹⁸⁵

160. In his testimony, Dr. Wright noted that he thought a sample of manure from a dairy heifer (a female calf) could be used to predict nutrient content from a beef cow that was “growing” so long as they were fed the same diet.¹⁸⁶

161. Dr. Wright’s statement, however, is contradicted by Paul Brietzke. Based on Brietzke’s experience, dairy cattle would produce a different manure than beef cattle.¹⁸⁷

162. Scott Thaden (“Thaden”), who prepared the Anez plans, noted his belief that his firm had averaged three 2011 manure samples from the winter feeding fields to arrive at the value that was used in the 2011/2012 Anez plan (12 N/6 P/5 K).¹⁸⁸ However, on cross-examination, Thaden admitted that a sample marked as “fresh” on April 5, 2011, was “questionable” as to whether it came from the winter feeding cattle because according to the pictures taken by Holien on March 8, 2011, the winter feeding cattle had been removed from the fields well before April 5, 2011.¹⁸⁹

163. Thaden also admitted that one of the samples (which was not identified in any way other than a date of “4/18/2011”), had significantly less nutrient content than the other samples (7 N/2 P/6 K) and a high moisture content, and likely contained a high percentage of snow.¹⁹⁰ Thaden also conceded that the manure samples could not be collected in a controlled manner, compared to a traditional feedlot environment.¹⁹¹

REMOVAL ASSUMPTION (SCRAPE AND HAUL)

164. The MPCA introduced pictures into evidence that documented that in 2011, there was a significant amount of manure on the winter feeding fields during and after the spring melt (when nutrient would be discharged to waters of the state), and that

¹⁸³ Brietzke Prefiled Test., at 10.

¹⁸⁴ Tr. 271.

¹⁸⁵ Tr. 740.

¹⁸⁶ Tr. 587-88.

¹⁸⁷ Tr. 382.

¹⁸⁸ Tr. 688.

¹⁸⁹ Tr. 689.

¹⁹⁰ Tr. 689, 691.

¹⁹¹ Tr. 692.

it had still not been scraped a month later.¹⁹² The MPCA also introduced pictures from March 26, 2012, that demonstrated that the feeding areas were manure-covered and had not been scraped¹⁹³

165. In his prefiled testimony, Werven indicated that he calculated the amount of nutrient placed on the winter feeding field by subtracting from the estimated deposition rate the amount Reichmann removes by scraping and hauling.¹⁹⁴

166. In his testimony, Brietzke questioned the number used for the nutrient removed because no load ever varied in weight, which is unlikely, given the circumstances of the winter feeding fields where the weight (and nutrient content) would vary according to the amount of snow in the load, the residue in the load, and the type of residue.¹⁹⁵ Werven admitted that he never looked to see if the loads varied.¹⁹⁶ He just relied on the information he received from Reichmann.¹⁹⁷

SOIL TESTING

167. In his prefiled testimony, Werven stated that he used the results of soil tests to determine the existing nutrient levels in each particular field.¹⁹⁸

168. In Brietzke's opinion, based on the data provided in the Centrol MMP,¹⁹⁹ Werven did not in fact rely on soil test data to create the plan. Brietzke pointed out that, in particular, although the plans appeared to call for soil nitrate testing, he could locate no soil nitrogen testing for any winter feeding field.²⁰⁰ Brietzke testified that soil nitrogen testing should be done annually, although other tests can be up to four years old under MPCA rules.²⁰¹

169. At the hearing, Werven admitted that he had not relied on test results for nitrogen, but that he used a nitrogen credit to account for the nitrogen from the manure.²⁰² When asked to locate that credit in the spreadsheets in the plan, he could not do so and then he admitted that he did not use a nitrogen credit as he previously had stated, but claimed this resulted from a computer problem.²⁰³

170. Werven also admitted that although he did a yearly nitrogen test for other Reichmann fields, he did not test for nitrogen in the spring on the winter feeding fields because "if you are out there trying to sample, there is cow patties all over and I just

¹⁹² Holien Prefiled Test., Ex. 1 (Affidavit Exs. 3 and 4, pictures from March 8, 2011, and April 8, 2011).

¹⁹³ Holien Prefiled Test., Ex. 2 (March 15, 2012, pictures) and Ex. 3 (March 26, 2012, pictures).

¹⁹⁴ Werven Prefiled Test., at 2.

¹⁹⁵ Tr. 278.

¹⁹⁶ Tr. 744.

¹⁹⁷ Tr. 745.

¹⁹⁸ Werven Prefiled Test., at 2.

¹⁹⁹ Manure Management Plan.

²⁰⁰ Tr. 280-86.

²⁰¹ Tr. 284.

²⁰² Tr. 745.

²⁰³ Tr. 748.

don't want to get one of them in your sample.”²⁰⁴ Werven did not try to address this data issue by obtaining a nitrogen sample in the fall after the crop was off.²⁰⁵

171. Thaden used 2010 soil test data to prepare the Anez 2011 plan.²⁰⁶ However, when asked to locate the 2010 data in the data compiled in Reichmann Exhibit 15, Thaden could not locate any 2010 data.²⁰⁷ Thaden also had to admit that the figures he used for phosphorus levels for the various winter feeding fields were inconsistent with the grid test data for both the Tract 2/R8 pens and the Tract 1/Culbertson sites.²⁰⁸

DISTRIBUTION OF MANURE/GRID SAMPLING

172. Brietzke also questioned the assumption in the Anez and the Control plans that after the manure is removed by scraping, the remaining manure is evenly distributed on the fields, such that an agronomic rate would be achieved.²⁰⁹ Brietzke concluded that random defecation by cattle would not result in an even distribution.²¹⁰ Brietzke noted that the grid sample test results for the winter feeding fields suggested that the distribution was not even and that there were “cold spots and hot spots.”²¹¹

173. In his prefiled testimony, Dr. Wright agreed that his assertion that “the cattle will use and deposit manure across the entire site during the course of the winter” should not be interpreted to mean that the manure would be evenly distributed.²¹²

174. In his prefiled testimony, Werven stated that “for some of the winter feeding sites we use a grid sampling system.”²¹³

175. However, at the hearing Werven noted that only two sites actually had grid sampling: the Tract 2/acclimation site in 2006 and the Culbertson site in 2011. Although Tract 2 was tested for nitrogen in 2006, the Tract 1/Culbertson testing did not include nitrogen, despite the fact that nitrogen was being used as the basis for nutrient planning.²¹⁴

176. Brietzke noted that both nitrogen and phosphorus were elevated on the Tract 2 (acclimation) field, and that the phosphorus exceeded agronomic needs on the Culbertson portion of the Tract 1 field.²¹⁵

²⁰⁴ Tr. 759.

²⁰⁵ *Id.*

²⁰⁶ Tr. 694.

²⁰⁷ Tr. 696.

²⁰⁸ Tr. 698.

²⁰⁹ Brietzke Prefiled Test., at 9; Tr. 296.

²¹⁰ *Id.*

²¹¹ Tr. 296.

²¹² Tr. 614.

²¹³ Werven Prefiled Test., at 2.

²¹⁴ Ex. 15.

²¹⁵ Tr. 290-92.

177. Brietzke noted that given the circumstances of winter feeding with cattle randomly depositing manure, manure management is inherently difficult.²¹⁶ Werven did not disagree.²¹⁷

178. Based on the evidence and the testimony, Reichmann has failed to establish that its manure management plans are adequate to support an assertion that the winter feeding operation is “sustainable,” i.e., that manure is being applied at agronomic rates and not building up nutrients in the soil that have the potential to impact ground or surface water. The manure management plans do not meet standards applicable to state-permitted feedlot facilities because they are not based on manure samples from the winter feeding animals, because they lack accurate soil data, make unsupported assumptions concerning the removal of manure from the fields, and assume that manure that remains after removal activities is evenly distributed.

VOLUNTARY ADJUSTMENTS

179. Reichmann has made substantial changes to its winter-time feeding practices since March 2010, including the addition of Tract 1 East and Tract 4; a substantial reduction (of more than one-third) in the total number of cattle on the winter-time feeding sites; a shift of cattle away from Tract 2 and Tract 3 and onto Tract 1 and Tract 4, which are flatter and farther from sensitive features; and the implementation of new management practices under the Pope County administrative permit. Accordingly, Reichmann maintains, the results of water samples collected in April 2007 or March 2010, prior to the implementation of these changes, does not provide any credible evidence as to whether Reichmann’s winter-time feeding sites are currently discharging.

180. Reichmann notes that Jerry Holien alleges that he observed discharges from Reichmann’s winter-time feeding sites in April 2011. But the photographs that purport to show these alleged discharges merely show ponding of water in depressions on the winter-time feeding sites and ice and water in the road-side ditches—the photographs do not show water flowing from the winter-time feeding sites into road ditches or tile inlets. Further, there is no evidence that Mr. Holien collected any water samples or even left the public road to observe the alleged discharges more closely. Accordingly, Reichmann maintains, Mr. Holien’s testimony that he observed discharges in April 2011 is not credible.²¹⁸ The ALJ, however, is persuaded that the problems noted in Mr. Holien’s testimony do not undermine the credibility of his observations of a discharge.

181. The MPCA introduced the results of a MinnFARM computer model that purport to show that Reichmann’s winter-time feeding practices will result in a discharge. But Reichmann notes that the research upon which the MinnFARM computer model was developed includes only traditional feedlots and does not include information about pastures or land with growing crops or crop residues. Accordingly,

²¹⁶ Tr. 329-30.

²¹⁷ Tr. 760.

²¹⁸ Holien Pre-Filed Test., at 11; Tr., at 861:8-862:22 (Reichmann Test.); MPCA Ex. 1, at ¶¶ 24-25, Ex. 3, pp. 12, 13, 29, and 39.

the MinnFARM model is only intended for use in evaluating facilities with a bare dirt or concrete base, and not facilities covered with vegetation, growing crops, or crop residues.

182. Reichmann argues also that significant errors were made when the data was input into the MinnFARM model. Accordingly, Reichmann argues that the results of the MinnFARM computer model are not credible.²¹⁹ The ALJ is not persuaded that the weaknesses noted by Reichmann in Mr. Schwint's evidence on the model's results are substantial enough to undermine the credibility of the model's predictions.

183. The MPCA presented testimony from Lisa Scheirer, who coordinates compliance activities for the MPCA's feedlot regulatory program, that voluntary practices do not change or affect the requirement to get a permit.²²⁰

184. At the hearing, Reichmann presented two expert witnesses, Dr. Cody Wright and Dr. George Rehm, who testified that Reichmann's current voluntary practices, if continued, would ensure protection of the environment.²²¹

185. Neither of Reichmann's witnesses claimed that they were qualified to offer an opinion as to whether Reichmann's operation was properly classified as "pasture" under state law or whether it did or did not need a permit under state or federal law.²²²

186. Both of Reichmann's expert witnesses admitted that if Reichmann discontinued the identified practices, they could not express an opinion that the operation would not be a potential threat to the environment.²²³

187. Dr. Wright admitted that without the things Reichmann claimed to be doing – the berms and buffers, regular soil testing, scraping and removing a portion of the manure, annual manure testing, and annual soil testing – the Reichmann operation would potentially "be problematic" from an environmental perspective.²²⁴

188. Dr. George Rehm agreed that if Reichmann did not do the things that he is currently doing (scraping and hauling, preparing a manure management plan), that he could not state an opinion that the winter feeding operation is successful.²²⁵

189. Reichmann cannot rely on his voluntary practices to avoid state or federal permitting requirements. Moreover, the testimony submitted at the hearing has established that the voluntary practices, even when subject to review by Pope County,

²¹⁹ Schwint Pre-Filed Test., at 4, 6; Tr., at 218:2-218:22 (Holen Test.); Tr., at 488:21-489:19, 491:7-493:3, 497:18-498:22, 499:10-502:2, 502:10-503:2, 509:22-510:11, 510:20-510:24, 526:12-527:24 (Schwint Test.); Tr., at 766:13-767:4 (Rehm Test.); Tr., at 836:5-836:7, 891:16-893:4 (Reichmann Test.); MPCA Ex. 33.

²²⁰ Scheirer Prefiled Test., Ex. 1 (Affidavit ¶ 12).

²²¹ Rehm Prefiled Test.; Wright Prefiled Test.

²²² Tr. 562 (Wright); Tr. 773-74 (Rehm).

²²³ Tr. 631-32 (Wright); Tr. 775 (Rehm).

²²⁴ Tr. 631-32.

²²⁵ Tr. 775.

do not meet state standards. The manure management plans that have been prepared lack key data, including actual manure samples from the winter feeding cattle and accurate soil testing results. The manure management plans also rely on assumptions that are questionable, such as the assumption that manure that remains after scraped manure has been removed is evenly distributed.

Based on the Findings of Fact, the Administrative Law Judge makes the following:

CONCLUSIONS

1. Reichmann is an “animal feedlot” as defined by Minn. R. 7020.0300, subp. 3, because a vegetative cover is not maintained in the winter feeding enclosures. Because Reichmann manages more than 1,000 animal units, a feedlot permit is required under Minn. R. 7020.0405.

2. Reichmann’s winter feeding operation does not meet the definition of “pasture” under Minn. Stat. § 116.07, subd. 7d (as amended by 1st Spec. Sess. 2011, ch. 2, art. 4, § 22) because the winter feeding cattle are not “allowed to forage on agricultural land” within the meaning of Minn. Stat. § 116.07, subd. 7d. Therefore, it is not exempt (as a “pasture”) from the State requirement to obtain a permit.

3. Reichmann is also not exempt from the requirement to obtain a permit as a “pasture” under Minn. Stat. § 116.07, subd. 7d, because “the concentration of animals is such” that a vegetative cover of crops is not maintained “during the growing season,” but only for a portion of the growing season.

4. Reichmann also does not meet the definition of “pasture” under Minn. Stat. § 116.07, subd. 7(q) because the winter feeding fields are not “winter feeding areas as part of a grazing area.” The winter feeding tracts are not a grazing area, but are used for raising crops. The area where vegetative cover is not maintained exceeds the immediate vicinity of areas where the animals are fed, watered, or otherwise managed (chutes and corrals). Vegetative cover is lost where the herd, which can number up to 1,900 animals, congregates.

5. Reichmann is an “animal feeding operation” under 40 CFR § 122.23 because crops or crop residue is not “sustained” in the “normal growing season,” but only for a part of the growing season after a crop is planted and it grows.

6. If the Commissioner follows the interpretation of federal law published by the U.S. EPA when it adopted the rules governing NPDES permits for animal feeding operations, the Commissioner should conclude that Reichmann is an “animal feeding operation” under 40 CFR § 122.23 because, during the time the animals are present, a vegetative cover of crop residue is not sustained.

7. The Reichmann winter feeding operation has caused discharges to waters of the state and waters of the United States. Although Reichmann has engineered

some of the winter feeding locations, this engineering has not been adequate to stop discharges, and discharges will likely continue unless further changes are made.

8. Because Reichmann confines and feeds more than 1,000 head of cattle between the registered dairy sites and the winter feeding fields, and these cattle are confined for more than 45 days or more in any 12-month period, Reichmann meets the criteria for a Large “CAFO” and is required to apply for an NPDES permit under 40 CFR § 122.23.

9. It is appropriate to order Reichmann to apply for an NPDES/SDS permit for its “winter feeding” sites and registered feedlot sites, or to terminate operation of the “winter feeding” sites unless a permit is obtained, or to operate such feeding sites at a stocking density consistent with maintenance of vegetative cover under the definition of “pasture,” in compliance with the proposed administrative order. Issuance of such an order would be in the public interest.

Based on the Conclusions, the Administrative Law Judge makes the following:

RECOMMENDATION

IT IS RECOMMENDED that the MPCA's proposed Administrative Order issued March 22, 2011, be **AFFIRMED**, and Reichmann be ordered to apply for an NPDES/SDS permit for its "winter feeding" sites, or terminate operation of those sites, or operate those sites in accordance with the proposed Administrative Order.

Dated: December 18, 2012

s/Richard C. Luis

RICHARD C. LUIS
Administrative Law Judge

Reported: Kirby Kennedy and Associates
Angela Sauro and Susan Strom, Court Reporters

NOTICE

This report is a recommendation, not a final decision. The Commissioner of the Pollution Control Agency (the Commissioner) will make the final decision after a review of the record. Under Minn. Stat. § 14.61, the Commissioner shall not make a final decision until this Report has been made available to the parties for at least ten calendar days. The parties may file exceptions to this Report and the Commissioner must consider the exceptions in making a final decision. Parties should contact John Linc Stine, Commissioner of the Pollution Control Agency, 520 Lafayette Road, St. Paul MN 55155, (651) 757-2014 to learn the procedure for filing exceptions or presenting argument.

The record closes upon the filing of exceptions to the Report and the presentation of argument the Commissioner, or upon the expiration of the deadline for doing so. The Commissioner must notify the parties and Administrative Law Judge of the date the record closes. If the Commissioner fails to issue a final decision within 90 days of the close of the record, this Report will constitute the final agency decision under Minn. Stat. § 14.62, subd. 2a.

Under Minn. Stat. § 14.62, subd. 1, the Commissioner is required to serve its final decision upon each party and the Administrative Law Judge by first class mail or as otherwise provided by law.

MEMORANDUM

Reichmann raises over 2,000 head of beef cattle during the winter on fields totaling approximately 416 acres in area. That ratio, which is conservative, of 5 cows per acre, is a ratio that far exceeds the Federal standard for a feed lot. The Federal standard is 2-4 acres per cow.

Reichmann may qualify for an exemption from the requirement to register his winter feeding operation as a feed lot if the evidence demonstrated (which it does not) that the fields used for winter feeding qualify as a “pasture” within the meaning of Minn. Stat. §§ 116.07, subd. 7d or 116.07, subd. 7(q).

The Administrative Law Judge is persuaded that because the winter feeding cattle are not “allowed to forage on agricultural land” on Reichmann’s farm, within the meaning of § 116.07, subd. 7d, his winter feeding areas do not qualify for the “pasture” exemption.

Under the same subdivision Reichmann is also not exempt from the requirement to obtain a permit because his winter feeding area is not a “pasture” because the concentration of animals there is such that a vegetative cover of crops is not maintained during the growing season, but only for a portion of the growing season.

The Administrative Law Judge is persuaded by the Agency’s argument that Reichmann’s cattle are “not allowed to forage on agricultural land” during the winter because there is insufficient vegetation counting as “forage” for the cattle to eat during most of the winter season when they are confined to the fields. The record is clear that, if the cattle ate only the vegetation available to them on Reichmann’s fields, they would consume all such vegetation within a comparatively small amount of time (likely less than a week).

There simply is not enough edible vegetation left on Reichmann’s fields during the winter season to sustain the cattle without supplying them with prepared feed. By his own admission Mr. Reichmann’s prepared feed constitutes 90% of the nutritional needs of his cattle on a daily basis.

In contrast, the testimony of MPCA Feedlot Specialist Jerry Holien, to the effect that the cattle maintained in the winter feeding fields will choose not to eat the vegetation remaining on the fields when they have a choice to eat the prepared feed, is credible.

After the Administrative Law Judge denied summary judgment in part, but ruled that a Federal NPDES permit is not required because Reichmann is not an “Animal Feeding Operation” (AFO) within the meaning of 40 C.F.R. § 122.23 (b) (1), the MPCA staff sought certification of that ruling, which was denied. However, in the ALJ’s Motion to Deny Certification, issued April 13, 2012, the Judge affirmed that the evidence at the hearing could address the question of whether “crops, vegetation, forage growth, or post-harvest residues” are present when the cattle are confined.

The Administrative Law Judge considers that clarification tantamount to leaving open the question of whether Reichmann’s winter feed lots constitute a “pasture”. In this Report, the ALJ has reached the conclusion that those fields are not a “pasture” within the meaning of the applicable statutes.

In connection with Reichmann's regulatory history with Pope County, which has had a winter feeding ordinance in effect since 2008, testimony was offered by Barry Bouwman, a consultant and agricultural inspector for Pope County. Mr. Bouwman emphasized that he reviews soil sample data in Reichmann's plans to make sure that phosphorus levels are not increasing to the point where action to reduce those levels needs to be taken. However, Mr. Bouwman does not drill down to determine whether the soil data stated in Reichmann's manure management plan is correct or accurate.

It is significant that Mr. Bouwman agrees that "feed lot conditions" develop on the Reichmann property each winter.

The Administrative Law Judge has accorded significance and credibility to the testimony of Jerry Holien to the effect that he has not observed foraging behavior or adequate amounts of forage on the Reichmann winter feeding fields. Rather, Mr. Holien's testimony is that the cattle generally are on "full feed". Mr. Bouwman also observed that Mr. Reichmann's cattle were being fed on the winter feeding fields "full feed for a gain."²²⁶

A number of photographs in the record are interpreted differently by witnesses for the MPCA and witnesses for Reichmann. Much of the dispute regarding the photographs centers around individual cows in the photographs which have their heads down at the time the image was captured. Mr. Holien notes that the fact that an individual cow might have its head down does not mean necessarily that it was foraging, because cows put their heads down for a variety of reasons. Reichmann maintains that the cattle depicted in such photos are, in fact, foraging for food.

Reichmann's evidence does not overcome the fact that a number of scholarly articles, including one by Dr. Cody Wright (one of Reichmann's expert witnesses) identify a typical density for cattle foraging on crop residue as 2-4 acres per cow. The cattle on the Reichmann site range from 4 to 7 cows per acre, and according to Holien, the true density is greater because Reichmann's beef cattle tend to mass in a herd near the feed bunkers, which are concentrated in an area of only 20 acres.

Regarding the issue of whether runoff occurs from Reichmann's winter feeding areas, Dr. Wright stated that "Crop residue that remains serves to reduce the risk of runoff that commonly occurs in traditional feed lots."²²⁷ However, Dr. Wright is not an expert on runoff models, and he has not performed an analysis to determine if any vegetative matter present on the Reichmann property actually reduces the risk of runoff.

Reichmann argues that the construction of berms and buffers, regular soil testing, and careful nutrient management practices (including scraping and removing a portion of manure from the feeding sites each year) combine to keep Reichmann in

²²⁶ Tr. 445.

²²⁷ Wright Prefiled Testimony, at 5.

compliance with permit requirements (if he had a permit), and that Reichmann has implemented sufficient and appropriate measures to control surface water runoff.

The fact that cattle might be able to forage for a short period of time on Reichmann's winter feeding lots when they are first placed in those fields, or have some incidental vegetation available to them at the margins of the fields the rest of the winter season, does not support a conclusion that the winter feeding cattle are "allowed to forage". It is clear that Reichmann's cattle are on full feed the great majority of the time that they are on the winter feeding fields, and that after they are on those fields for a few weeks, most of the incidental vegetation that remains is down and soiled (by manure and urine) and not truly available as "forage".

In order for Reichmann's winter feeding fields to constitute a "pasture" and not a "feedlot", vegetative cover must be maintained within the area where the cattle are confined throughout that time. In that connection, the parties agree that when the cattle are first placed on winter feeding fields there is vegetative cover. However, photographic evidence introduced by the MPCA shows that, in the winters of 2011 and 2012, by January in some cases and by March in others, substantial portions of Reichmann's winter feeding fields were covered with manure and lacked substantial vegetative cover.

It is noted that one of the key parts of Reichmann's nutrient management, scraping the fields to remove manure, also removes vegetative cover.

Regarding the issue of whether a vegetative cover is maintained for the growing season, analysis begins with Minn. Stat. §116.07 subd. 7 d, which provides that "pasture" includes "areas where livestock graze on grass or other growing plants... [or] agricultural land where livestock are allowed to forage during the winter time and which land is used for cropping purposes in the growing season." It is noted that the Administrative Law Judge concludes that the record establishes clearly that Reichmann's winter-feeding livestock are not allowed to "forage during the winter time" within the meaning of the statute, because of the general fact that forage is not available to them the majority of the time.

The statute provides also that, in either case, the concentration of animals must be such that a vegetative cover, whether of grass, growing plants, or crops is maintained during the growing season except in the immediate vicinity of temporary supplemental feeding or watering devices.

While MPCA does not dispute that Reichmann grows crops on the winter feeding fields, it argues that Reichmann does not maintain a vegetative cover of crops "during the growing season" because the row crops Reichmann typically plants on the winter feeding fields do not emerge until well after the growing season has commenced, and there is no vegetative cover of crop residue remaining on the winter feeding fields during or after the winter feeding activity.

Regarding that issue, the Administrative Law Judge agrees with the argument of the MPCA staff. On each of the fields in question, it is clear that vegetative cover could not be maintained by the end of the winter feeding season and that a vegetative cover had to be re-established by planting a new crop. Mr. Reichmann, backed by the evidence provided by Dr. George Rehm, noted that the normal growing season in central Minnesota is from the date of planting until the date of the first frost.

However, the MPCA staff has established there is no vegetative cover “maintained”, either of crop residue or growing plants, on the Reichmann winter feeding fields during the “growing season” as that term is defined by the National Range and Pasture Handbook, a source which Reichmann’s experts agree is authoritative and was actually introduced into evidence by Reichmann. The Handbook defines “growing season” as “that portion of the year when temperature and moisture permit plant growth.” It is clear from the record that there is no vegetative cover on Reichmann’s crop fields that he uses as the site for feeding beef cattle from the date of planting until the crops actually emerge.

An intermittent stream runs through Reichmann’s winter feeding fields. The stream empties into Ashley Creek, which is a navigable water, and constitutes a “water of the state” for the purposes of this proceeding.

The MPCA staff maintains Reichmann’s winter feeding fields have discharged pollutants on a number of occasions, which also supports the need for issuing a feed lot permit to the Respondent.

In 2007, Mr. Bouwman took water samples from Reichmann’s winter feeding location, then known as Tract 2. Based on those samples, Mr. Bouwman concluded that the winter feeding field was discharging pollutants into the intermittent stream. Mr. Reichmann does not dispute that the discharge has been documented, but claims he has changed his winter feeding practices by reducing the population of cattle in the area formerly known as Tract 2, now known as the “acclimation” area. Cattle are not fed in the acclimation area. They are either processed in or processed out of the fields at that location.

Lee Engel, an MPCA employee, collected samples from the stream system adjacent to the Reichmann winter feeding fields in March 2010, with a view to determining whether the winter feeding operation was causing a discharge. Engel collected samples upstream and downstream of the winter feeding operation, and also collected one downstream from Reichmann’s confined dairy feeding operations, which are subject to a permit. During the sampling, Mr. Engel observed that manure, based on color and smell, had traveled over the vegetation near where Engel observed a discharge to the stream as it came off Tract 2. The stream smelled like manure to Engel at that location.²²⁸

²²⁸ Engel Prefiled Testimony, at 3; Ex. 1 (Affidavit).

Engel followed the Agency's sample protocol for this type of study and used sterilized and calibrated equipment to obtain the samples and other readings, which he then delivered to the Environmental Health Lab at the Minnesota Department of Health. Pre-filed testimony from Jeff Brenner, the Department of Health's Inorganic Lab Supervisor, establishes that the results presented in the lab report reflect accurately the chemistry of the water sampled by Mr. Engel.

Gerald Blaha, an expert with regard to analysis of water quality samples, offered his opinion that the winter feeding operations of Reichmann result in discharges of pollutants related to manure into the unnamed, intermittent stream that flows into Ashley Creek. Blaha bases his opinion on test results that show, when compared to a sample upstream from the winter feeding location, but downstream from one of the Reichmann registered facilities, the results for ammonia and Kjeldahl nitrogen are higher in the sample downstream from the winter feeding area. Blaha noted also that E-Coli bacteria counts were much higher at the sample downstream from the winter feeding location compared to the sample downstream from the registered dairy site. Those results were not questioned by Reichmann at the hearing, nor did Reichmann present any contrary evidence.

The MPCA also presented George Schwint, a witness who ran results from Reichmann's winter feeding operation through a standard Minnesota Feed Lot Annualized Runoff Model (MinnFARM) which predicts whether a particular site presents a pollution hazard. Based on the running of the model, Mr. Schwint concluded that the current Reichmann winter feeding operation would be predicted to cause a discharge of pollutants.

At the hearing, Mr. Schwint admitted he had inadvertently reversed "length" and "width" numbers for the model, but that the error would not change the outcome of the model. In that connection, Mr. Reichmann noted that his consultant, Chris Skonard, is of the opinion that the only way Reichmann's winter feeding operations could meet standards for discharge applicable to permitted feed lots was to construct a discharge control structure similar to that used in a permitted feed lot.

Under Pope County's winter feeding ordinance, Reichmann is required to submit an annual manure management plan. Such a plan would not be required under State or Federal Law if Reichmann's feed lots qualify as "pasture". Paul Brietzke, an MPCA pollution control specialist, has extensive private sector and regulatory experience involving manure management plans. Mr. Brietzke found many flaws in the predictive plans submitted by Anez Consultants, and actual manure plans submitted by Centrol (Brent Werven), who are consultants for Reichmann.

The Anez Plan is submitted before the winter feeding permit is issued and is intended to justify the stocking numbers proposed for the permit. The Centrol Plan addresses all the manure generated by the Reichmann operation, and is used to determine whether additional nutrients need to be applied commercially to meet predicted crop needs, or whether there has been an over application.

In Mr. Brietzke's opinion, neither plan meets PCA rules governing such plans due to deficiencies in the manure testing and soil testing data. Mr. Brietzke noted that the plans relied on certain assumptions that could not be justified in concluding that manure had not been applied in excess of agronomic (economical agriculture) rates.²²⁹

Mr. Brietzke noted that his review of data included in the 2011 plan from Centrol did not include any samples that came from the winter feeding areas, and Mr. Werven subsequently admitted that the only sample that he used for his nutrient management plans was taken from dairy cattle at the registered feed lot. An example of how the Anez Plan for the 2011-2012 season is flawed emerges from the testimony of Scott Thaden, who prepared those plans. Mr. Thaden admitted that one sample marked as "fresh", purportedly taken April 5, 2011, was questionable regarding whether it came from winter feeding cattle, because according to pictures taken by Mr. Holien on March 8, 2011, the winter feeding cattle had been removed from the fields well before April 5, 2011.

Mr. Thaden also admitted that one of the samples that he had used had far less nutrient content than the others and a high moisture content, likely because it contained a high percentage of snow. Mr. Thaden conceded also that the manure samples could not be collected in a controlled manner, as compared to samples taken from a traditional feed lot environment.

Mr. Brietzke noted also that the number used for nutrient removed from the winter feeding fields in the Werven analysis was questionable because no load used in the data ever varied in weight (which is highly unlikely, given the circumstances of winter feeding fields where weights and nutrient content can vary according to the amount of snow in the load, residue in the load and the type of residue). Mr. Werven admitted that he did not look to see if the loads varied, but he simply relied on information he received from Mr. Reichmann.

The Anez and Centrol Plans assume that after manure is removed by scraping, the remaining manure is distributed evenly on the fields, achieving an agronomic rate. Mr. Brietzke questions this assumption, because it is his observation that random defecation by cattle does not result in an even distribution of manure. Mr. Brietzke supported his opinion by noting that a grid sample test from the winter feeding fields yielded results suggesting that the distribution was not even, but that there were "cold spots and hot spots".

In that connection, Dr. Cody Wright agreed that his assertion that "the cattle will use and deposit manure across the entire site during the course of the winter" should not be interpreted to mean that the manure would be distributed evenly.

The Administrative Law Judge agrees with the Agency's argument that Reichmann has failed to establish that its manure management plans are adequate to

²²⁹ Brietzke Prefiled Testimony, at 10.

support an assertion that the winter feeding operation is “sustainable.” That is, whether manure is being applied at agronomic rates and not building up nutrients in the soil that have the potential to impact ground or surface water? The management plans are flawed because they are not based on manure samples from the winter feeding animals, they lack accurate soil data, they make unsupported assumptions concerning the removal of manure from the fields, and they assume that the manure remaining after the removal activities is distributed evenly.

The Administrative Law Judge concludes that Mr. Reichmann cannot rely on his voluntary practices to avoid State or Federal permitting requirements. The evidence establishes that his voluntary practices, even when subjected to review by Pope County, do not meet State standards. Reichmann’s expert witness, Dr. Cody Wright, admitted that without the things Reichmann claims to be doing (installation of berms and buffers, regular soil testing, scraping and removal of a portion of the manure, annual manure testing, and annual soil testing) that Reichmann’s operation would be potentially “problematic” from an environmental perspective.²³⁰ His other expert, Dr. George Rehm, agreed that if Reichmann did not do the things that he is currently doing, such as scraping and hauling, and preparing a manure management plan, that he could not state an opinion that the winter feeding operation is successful.

To the extent that “successful” means that Mr. Reichmann maintains an operation that meets all the standards that would be required under a State permit, the Administrative Law Judge has concluded that Reichmann’s efforts are not successful, and that a permit is required.

In its Final Argument, and at the hearing, Reichmann objected to any evidence to the effect that MPCA delayed taking action against Reichmann for a year (until after the 2010-2011 winter feeding season) because of ongoing settlement discussions. The ALJ again overrules that objection and denies Reichmann’s request to strike any evidence of settlement discussions and negotiations from the record.

It is so ruled because Reichmann’s objection/request is misplaced. While Rule 408 of the Minnesota Rules of Evidence excludes statements made in compromise negotiations generally, exclusion is not required when the evidence is offered for “negating a contention of undue delay,” and the ALJ is persuaded that was the purpose for which the evidence that the parties had engaged in settlement discussions was offered.²³¹

In addition, the Rule is not designed to exclude the fact that settlement was attempted, but not accomplished, without revealing details of what the parties offered. Accordingly, Reichmann’s request to exclude is denied.

R. C. L.

²³⁰ Tr. 631-632.

²³¹ See Findings 72-75.